

Planning Strategies for Urban Sustainability in the Age of Globalization

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Summary

The urban is important not for anything intrinsic to urban per se, but because it is where economic development and capital accumulation are best restructured, because it is where diverse types of global trade take place, and because it is where patterns of land development and uses of natural resources are decided. For the sake of economic growth, the government usually promotes excessive development activities that are not related to availability of public facilities and environmental protection. The impact of urban development issues on quality of life and urban sustainability is remarkable. While economic globalization changes the global industrial structure and shifts the spatial structure of productive activities, it has forced the government to face new challenges. In the case of Taiwan, the issues discussed in this paper indicate the need for the government to modify its existing policy and planning strategies. Therefore, in order to achieve urban sustainability, this paper provides sustainable planning strategies along with advancing urban spatial competitiveness and balanced economic development, enhancing local conditions, improving urban spatial quality, and some smart growth techniques as a reference for the government.

1. Introduction: Challenges of Urban Sustainability under Globalization- from the Development of the Cities in Taiwan

In the 1990s, globalization and sustainable development become two important issues in the world. According to a prediction made by the United Nations, after 2025, more than 60% of the world's population will live in cities. At present, the popularity of Internet has resulted in a more effective globalization. National boundaries are blurred, and the importance of local areas is more emphasized. Many scholars call this century 'the Urban Century' (Hall, 2001; Clark, 1996). Owing to spatial polarization, there are more resources and capital aggregated in some cities. Therefore, cities have more opportunities to influence the quality of living as well as investment environment in the age of globalization. Again, cities are the convergence of people's activities

and consumption, which would be the head to damage natural environment and resources. The substance of urban sustainability becomes more the ways of dealing with collective consumption, value system, human attitudes toward urban environment, and life styles, though as an issue of resource management as well as political reform.

As in most countries, the environmental degradation produced by rapid urban growth in Taiwan has yet to be adequately corrected by either market forces or government policies and regulations. (Peterson, Kingsley, and Telgarsky, 1991). Urban development without control has deteriorated natural resources as well as urban finances. For example, housing vacancy rate of Taiwan was 17.6% in 2000. The housing vacant units amounted to 1.23 million. This has distorted the demand and supply of housing market. Still, the local governments have permitted excessive developments that do not coordinate with the availability of infrastructure facilities. As a result, Taiwan with population 22.5million in 2003, 77.7% of population resides in urban areas, but existing urban land can still accommodate as more as 7. 26million. Furthermore, 55 percent of the total planned public facility area has not been expropriated by the end of 2001. The existing level of service has led to inconveniences in daily life and the deterioration of urban life.

Under globalization, two phenomena have occurred in Taiwan. First, there seems to be a contradiction between pursuing economic growth and shaping high living quality of urban space. The de-industrialization which resulted from globalization has led severe impact on urban space, like decline in inner-city and unaffordable real estate in urban area which pushes labor class to move out. This results in the urban sprawl, longer commutation, and long-term traffic block; and environmental quality has dropped. Second, the over emphasis on pursuing economic growth and enhancing competitiveness becomes an excuse for consuming more land and natural resources, thus making Taiwanese suffer inferior living quality and uncomfortable urban space, which cause antipathy of multinational companies.

Economic globalization has demolished the boundary of world economy. It alters local conditions and land use demand scale and location. Global enterprises seek and exchange for economic space in the new international division of labor in order to pursue profits and reduce costs. (Lai, 2001) Thus, in the age of globalization, the development of a city and its space becomes complicated and critical. However, the priority of city government's policy is so economy-led that has endangered the environmental system and misled development activities beyond urban periphery. This results in the spatial mismatch between the locations of jobs and housing which brings longer commute trips and deteriorates traffic conditions. This not only invades ecological areas but also imposes great burden on local fiscal budgets.

Figure 1 shows the relationship between sustainable development subjects and urban development problems happened in Taiwan under globalization. Facing the growing consciousness of sustainable development in the world, while confront the stress of economic globalization, the balance between urban sustainable development and economic growth has become an urgent target for city government and civil society. Within this context, the cruxes are "can economic growth and urban sustainability be symbiotic to create a healthy urban space?" and "how can the government provide strategies to increase attractiveness and amenities without damaging environmental resources?"

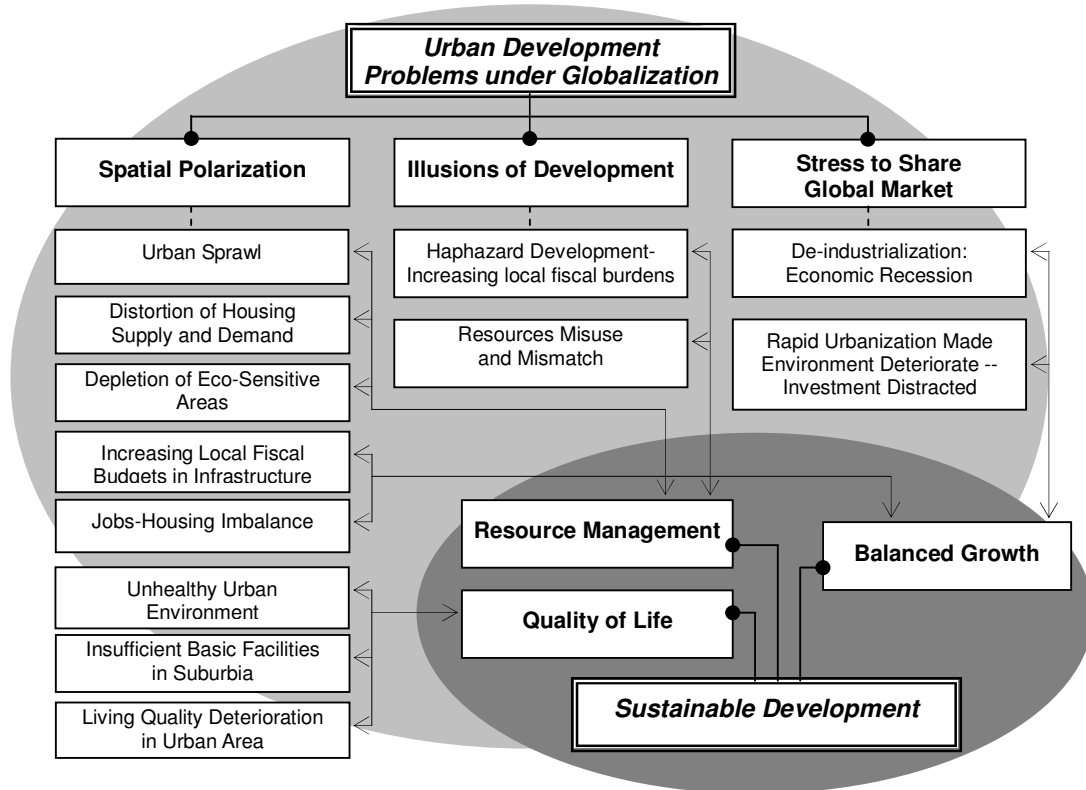


Figure 1 Relationship between Sustainable Development Subjects and Urban Development Problems under Globalization

2. Sustainable Planning Strategies in Cities

According to Local Agenda 21, cities are the units when discussing world sustainability. Economic development and environmental sustainability may not be a trade-off. A city's capacity of attracting more economic investments is greatly influenced by the quality of its environment. Rogerson (1999) argues that the quality of the environment strongly influences a city's ability to attract highly skilled labors, which further determines how much productivity enhancement can be achieved. If the urban environment is inadequate, it seems to negatively affect urban economic development. Moreover, deteriorating environments are part of the reasons for difficulties in attracting foreign direct investment. (World Bank, 1993; Douglass, 2000) Worldwide increased attention has been paid to the repercussion between urban development and environmental quality. It is commonly recognized that the key to the protection of our future environment as well as the quality of life and the prevention of inappropriate land development is a more effective planning strategy. Therefore, there are three key concepts of urban sustainable planning: 1. Pursue sustainable economic growth and increase employment rates but at the same time abate the dependence of natural resources. 2. Improve spatial quality and shape urban area into a high quality living space to enhance investment and urban competitiveness, attract residents and business, and avert development of chaotic urban space. 3. Combine the two suggestions above to increase attractiveness which offers promising strategies for integrating economic opportunities, spatial quality, and growth management into inner-city. The followings are planning strategies that we suggest:

2.1 Boosting urban spatial and economic development

2.1.1 Planning for Urban Enterprise Zones

In order to reduce any obstacles of development and encourage more investments, governments could establish industrial zones, which help investors receive the right to ownership of land, improve the condition of infrastructure, promote the cooperation and merging of related industries, and achieve a cluster effect. After all, for global investors, places where they can more efficiently save costs and have adequate infrastructure readily available for use are where global competitive advantages exist. In the UK, governments plan some districts (mainly in the inferior areas) as Urban Enterprise Zones for creating jobs and revitalizing local areas. Strategies include removing bureaucratic and tax obstacles, simplifying the system of land development permission, providing zoning incentives, and repealing minimum salary policies and rental control policies.

2.1.2 Creating and enhancing local conditions

Enterprises always locate at the countries which give them more profit (Thurow, 2000). This means that enterprises will decide where to invest by considering the economic comparative advantages of a particular place. The advantages can be declared as spatial conditions of a region, which is able to maintain and attract investment, to enhance industrial competitiveness, and to increase their productivity. Furthermore, local conditions are affected not only by the native conditions, such as geographical features, but also the comprehensive factors of local culture, policies from different levels of governments, and the agglomeration effect of industries. Local conditions, including societal and infrastructure provisions and natural resource endowments, reflect the innately natural characters and artificial strategies in an area which is always expected to be competitive, and provide enterprises with better productivity and the link with global market. However, some of the conditions are increasingly less important in attracting international production of the kind that is driving globalization, e.g. skilled labor and infrastructure, not resources, are more important location advantages which few developing countries have but which all can create. (Dunning and Hamdani, 1997) If cities hope to play a role in the global market, local conditions should be complete and their industries should be accommodated to global market, which means that under the global competition, local governments have to consider the local endowments and enhance the local conditions in order to establish unduplicated and productive industries. Local governments should improve the infrastructure and quality of living, make overall plans for efficient resource use, and reduce the development and trade costs.

2.2 Improving urban spatial quality

Urban spatial quality affects the economic investment and the dwelling of the urban population. When the urban spatial quality is decadent, local economic activities and population may move away. There are two results in the city center: 1. urban economy goes into recession; 2. governments' funds are distributed to the suburbs and outer-city areas which degenerate inner-city development. However, from Taiwan's experiences, the depraved urban spatial quality results from planning without integrating economic development, infrastructure, market factors, and quality of life with environmental protection. Moreover, natural environment in suburban areas and even in the inner-city, suffered serious devastation. Thus, the deliberation of improving

urban spatial quality should also deal with the following three issues: 1. managing urban sprawl and improper development; 2. sustaining urban economic activities and stabilizing urban development funds; 3. pursuing a healthy community and offer desirable amenities to create an attractive environment. Implementation of the following strategies is suggested to solve the aforementioned problems.

2.2.1 Using growth control quotas method to manage housing market and maintain planning quality

The local governments in Taiwan fall into illusions of development and believe the more developable land, the more economic growth. Further, local governments permit too much development without guiding the timing, amount, and location of urban expansion. Comparing to other countries, e.g. from the sustainable development strategies of U.K., the concept of compact city is requested. The UK national government has also issued recent policy papers proposing a target that 60% of future residential growth occurs on reused urban land (Beatley, 2000). Therefore, we suggest using growth control quotas method, from the concept of carrying capacity and corresponding with the trend of urban population growth and the land demand of industries, to manage the location, cost, amount, and quality of development areas, which makes the development to be a continuous and efficient action. Central government should propose primary policy goals for growth control quotas and propose clear land use policies on urbanized, urbanizing, undeveloped, and prohibited development areas, ensure the preservation of agricultural lands and critical resource areas, and enhance the living environment for the urban and rural community. This can control the amount in housing market, avoiding the over supply from opportunists but encouraging urban regeneration regularly, and reduce over-expenditure of public and administrative cost caused by market failure.

2.2.2 Directing spatial development by growth management

Permitting development without planning infrastructure and considering urban development trend is irrational and too expensive for government. It causes high-growth areas suffering from the decline of infrastructure quality and low-growth areas attracting increasing development activities without concurrently providing adequately needed infrastructure. Therefore, we suggest implementing growth management strategies as follows: 1. Restraining development by prohibiting any development into natural and sensitive environment areas, coastal areas, historical, memorial and cultural sites, and important agricultural fields; 2. Encouraging development with economic development plan in designated regions to implement enterprise zone policy, to promote urban regeneration, and to provide incentive zoning policies for shaping more intensive, efficient land use pattern; 3. Affecting development by developing standards of public facilities and services which development permission is based on to ensure the efficient resource use and local quality of life, and control the timing, location, and amount of land development to avoid sprawl and inefficient land use and funding; and 4. Guiding development by a phasing growth program or growth control quotas method, which is tied to the market factors and carrying capacity of natural as well as social resources to attain the sustainable goals.

2.2.3 Improving inner-city spatial quality by strategies of smart growth

For increasing urban livability and attractiveness, combining with sustainable development and new urbanism, smart growth strategies call for interrelating economic development, conservation of resources, and social

equity to attract people to live and invest in urban areas (Porter et al, 2002). The strategies are as follows:

(A) Promoting Transit-Oriented Development (TOD)

Up until 1980s, Taiwan's urban development was recognized as a conflict with the concept of smart growth and sustainable development. It is found that current city and regional planning has depleted valuable resources through urban sprawling and land conversion in localities. Within this context, it is needed to study how to employ the concept of TOD to guide urban development patterns and to build a highly livable environment in order to reduce urban expansion. The purpose of promoting TOD is to coordinate the urban spaces of living, working, shopping, and dwelling with orderly development along the corridors of the transportation systems. This will enhance the economic efficiency of land use development and infrastructure delivery, and improve the function of transportation system. By applying the concept of New Urbanism, urban design is implied for improving the neighborhoods around transit stations to create a livable and convenient place to attract people and enterprises to move in.

TOD should develop from a regional aspect, deal with the main objectives of urban sustainability, integrate a public transportation system, and then be implemented at station planning level. As a result, TOD attempts to do or assist the following things: 1. evaluating totality of development to help organize growth on a regional level to be compact and transit-supportive; 2. reserving sensitive habitat, riparian zones, and high quality open space; 3. encouraging infill and redevelopment along transit corridors within existing neighborhoods; 4. accelerating the construction of transit system and raising development density around transit to increase transit ridership, reduce motors' usage in CBD, release traffic congestion, and decrease air pollution; 5. diversifying land uses and providing a mix of housing types, densities, and costs to create a livable, convenient and self-sufficient city; and 6. regulating architecture design and parking space and creating pedestrian-friendly street network that directly connect local destinations.

(B) Reforming the urban image and creating walkable neighborhoods

For preventing suburbanization, the most important strategies are to increase the appeal of the cities, such as improving the quality of urban environment and shaping urban image. According to the Urban White Paper of Tokyo 2000—Increase the attractiveness of International City Tokyo (Tokyo Metropolitan Government, TMG, 2000), urban policy should support the city “by developing the necessary facilities, generating an attractive image and reinforcing the efficiencies of agglomeration”. “A more open approach is taken in which the attraction of international business and tourism are seen as key elements.” (Saito and Thornley, 2003:767)

Transit stations can be designed for matching urban cultural or art heritages in order to shape the local image. The design of the stations can be linked with cultural heritages or landmarks in cities to shape an open space or leisure spot with local images. To enhance a city's attractiveness, the integration of urban design for pedestrian precincts, public transportation, housing, and commercial areas could strengthen the complete image and leisure function. Besides, it is necessary to carry out planned community space with a certain center and scope by reviewing the current urban neighborhood structure, improvement of the intermittent arcades, combating illicit activities, and appropriate walking environment with full functions for shopping, leisure, and social interaction.

(C) Improving the inner-city environment and facilities

Globalization pushes urban industries to move out so that makes the cities face de-industrialization, industrial shifts, or industrial reconstruction. This would also reduce the jobs in urban areas and reduce the importance of inner-city industries, which is like the situation, Switching Crises, described by Harvey (1982) (Carley, 1990). Under the stress from global competitions, central governments may emphasize more the stability of the macro-economy, but neglect the unbalanced regional development and considerable unemployment in specific areas. Thus, among local governments the provision of incentives, like the improvement of basic facilities, enhancement of local labor capability, and addition of financial subsidization, is necessary to compete with others in order to get more industrial investment. Accordingly, the policy to improve urban space for industrial and living activities is also required.

3. Conclusion

A call for effective planning strategies has resulted from the deterioration of urban sustainability. The strategies suggested in this paper are integrated by different levels as shown in Table 1. The key point for urban development is “to change the quality of growth” (WCED,1987 : 52-54) in order to ensure our living and natural environment not to be deteriorated. Therefore, the task is not an alternative option between environment and economic growth, but how to approach sustainability with balanced growth.

Table 1 Planning Strategies, Interrelation, and Corresponding Un-sustainable Problems under Globalization

Planning Strategies	Resolve Problems for Urban Sustainability											Interrelation: Planning Strategies Levels	
	Urban Sprawl	Increasing Local Fiscal Budgets in Infrastructure	Jobs-Housing Imbalance	Depletion of Eco-Sensitive Areas	Insufficient Basic Facilities in Suburbia	Living Quality Deterioration in Urban Area	Distortion of Housing Supply and Demand	Unhealthy Urban Environment	Resource Misuse & Mismatch	Haphazard Development-Increase local fiscal budgets	De-industrialization : Economic Recession		Investment Distracted
Planning Urban EZ	X						X	X	X		X	X	<div>High</div> <div>↕</div>
Enhancing Local Conditions						X		X			X	X	
Growth Control Quotas Method	X	X	X	X	X		X		X	X			
Growth Management	X	X	X	X	X	X	X	X	X	X	X		
TOD <Smart Growth>	X		X	X		X		X	X		X	X	
Reforming Urban Image & Creating Walkable Neighborhoods <Smart Growth>			X		X	X		X			X	X	<div>Low</div>
Improving Inner-city Environment & Facilities <Smart Growth>	X	X	X		X	X		X	X		X	X	

The trend of globalization has reflected upon the development of urban space; it becomes a new substantial power for urban spatial transformation and intercity competition. Most cities in different countries hope to enter the global economic system, and they welcome all kinds of capital for the sake of their development.

Subsequent to the pursuit of economic growth in these cities, either the result of mass consumption of environmental resources and deterioration of living quality, or the result of consideration of economic and environmental sustainability, depends on the policies, resource management, and the attitude of civil society. Moreover, the better spatial quality in inner-city area, the more comparative advantages of territorial endowments and the more perfectly institutional milieu relate to the attraction of urban environment and the intensification of industrial investment. And this is the crucial effect for cities while approaching sustainability. After decades of economic growth, people deserve to have a better living environment. They ought to realize that they must find an alternative to their unrestrained behavior of depleting the scarce resources earmarked for future generation. The challenge of attaining urban sustainability is both difficult and necessary. The mission has just begun toward the challenge.

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